Minerals and Geohazards Division

Plot-It

User Guide

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Project and Document Information

The objective of this project was to develop an on-line geochemical plotting application using a platform independant, object oriented programming language which would replace a previous application written in FORTRAN, known as the Geochemical Data Analysis system (GDA). As with most systems developed in the early 80's the system was a stand alone PC based application - making distribution and maintenance difficult to manage. GDA was also limited by capacity imposed by the MS-DOS operating system and the HALO graphics package.

The redeveloped application, known as Plot-It, was designed to overcome many of GDA's limitations and provide GA scientific staff and external clients with an easily accessible software package for retrieving and plotting geochemical data held in GA Corporate Databases. Further to these objectives the modular design and interaction with local file systems would allow Plot-It to provide plotting capabilities for any data source and allow new graph types to be added as required.

The application, Plot-It, includes facilities for

- importing local data files
- merging multiple data files
- extracting data from Geoscience Australia's geochemical database (OZCHEM)
- generating histograms, spidergrams, triangular plots (ternary Diagrams), and XY Scatter plots
- saving data and images to local file systems

Revision History

Version	Date	By	Comments
0.1	September 2003	Gavin McKenzie	Initial Draft
0.2	November 2003	Gavin McKenzie	Further additions, including Basic HTML version
1.0	December 2003	Gavin McKenzie	Final version

Responsibility and Distribution

Role	Custodian
Project Leader	Neal Evans
Developer	Kuo-Ping Feng
Scientific Advisers	Dave Champion, Anthony Budd, Nick Williams
Database Advisers	Irina Bastrokova, Jinhong Chen
Technical Writer	Gavin McKenzie

Conventions Used in this Document

The following typographical and layout conventions are used in this document:

Note:	Notes bring important related information to the reader's attention.
Italics	References to other sections of the document not linked, or other documents, are displayed in italic. For example, 'Technical information can be found in the *Geoscience Australia Databases Overview and Developers Guide*'. References to forms, windows and frames within an application, also appear in italic. For example, 'Queries can be entered from the *XXXXX Form*.
Bold	The names of fields, keys, menus and buttons on a window are displayed in bold. For example, 'In the **province name** field enter the name of the zone'.

Introduction

Welcome to the User Guide for **PLOT-IT**, Geoscience Australia's web-based Geochemical Data Analysis (GDA) system.

The redevelopment of Geoscience Australia's Geochemical Data Analysis (GDA) package to run on a standard web browser provides GA staff and clients with an easily accessible software application for the retrieval and visualisation of geochemistry data. With PLOT-IT users can extract data directly from Geoscience Australia's whole rock and stream sediment geochemistry database (OZCHEM) into a table, then filter, sort, and group data from the table before plotting it as an X-Y scatter diagram, a ternary plot, a spidergram or a histogram.

Users have access to a fully functional Java-enabled version that allows them to zoom, pan and manipulate the plotting characteristics, such as colour, symbols etc. or to a simple HTML- only version.

Tables of data and plots can be downloaded to the users' PC for later manipulation and display.

A feature rich application such as this requires a feature rich browser which we have provided by extending the standard capabilities of a typical web browser with a Java applet. For clients who are unable to utilise this extension a basic html only (no java, no javascript) version was also designed. The basic application uses server side processing to extract data from the OZCHEM database and provide it to the client in either table or csv format.

Background

GDA (Geochemical Data Analysis) was developed in the early 80's as a stand alone IBM PC-based geochemical data processing system. The programs were written in FORTRAN 77 (microsoft compiler) and used the Media Cybernetics HALO graphics package for plotting. The system included facilities for generating plots (histograms, XY plots, triangular plots, spider grams, etc.), calculating statistical functions (e.g. mean, standard deviation, regression lines, correlation coefficients and cluster analysis) and CIPW norms, printing tables and carrying out petrogenetic modelling calculations. Plots could be displayed on a PC screen for inspection and editing before being output to a plotter. Other programs allowed samples to be assigned to groups for plotting purposes, and for editing and merging of datafiles.

- GDA was developed by Lloyd Simons, a contract programmer with Livewire Computer Services for the then Bureau of Mineral Resources, now known as Geoscience Australia. (see Reference Manual BMR Record 1988/45, Sheraton J.W. and L Simons (hardcopy only)

Plot-it's initial design commenced in April 2003 and incorporated many of GDA's standard capabilities and exceeded all of the DOS based data file limitations. Plot-It is now only limited to the client's memory and CPU capabilities. Petrogenetic modelling has not been implemented (no immediate plans to implement).

- Plot-It was developed by Kuo-Ping Feng, a contract programmer with Spherion Recruitment Services Australia, using Java Swing and Java Servlets. Java was chosen as a proven technology capable of providing a platform-independent web based solution.

System Purpose

Plot-It was developed as a web-based geochemical plotting application to replace a stand-alone FORTRAN software package. The Plot-It system:

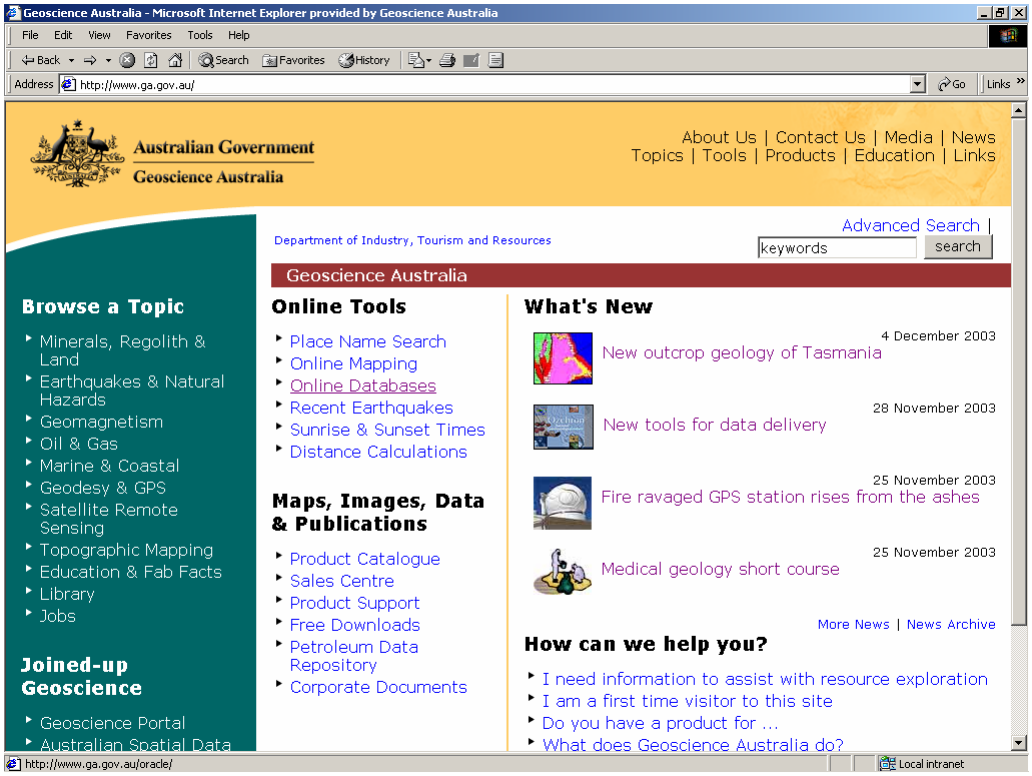
- Provides a user-friendly GUI with on-line help and User Guide.
- Provides dynamic access to Geoscience Australia (GA) databases.
- Streamlines the full cycle of data retrieval, filtering, grouping, sorting and plotting in one single application.
- Enables users to define new and modify existing graph types.
- Provides significant customisation and automation.
- Enables universal access via a web browser through an internet connection.
- Provides cross-platform portability.
- Provides potential for 24x7x365 access.

Although the redevelopment deals specifically with the extraction and display of geochemical data (OZCHEM), the design of the application is sufficiently generic that it can be extended to the retrieval and plotting of data types from other data sources. Already GA staff are utilising the application with geochronological data.

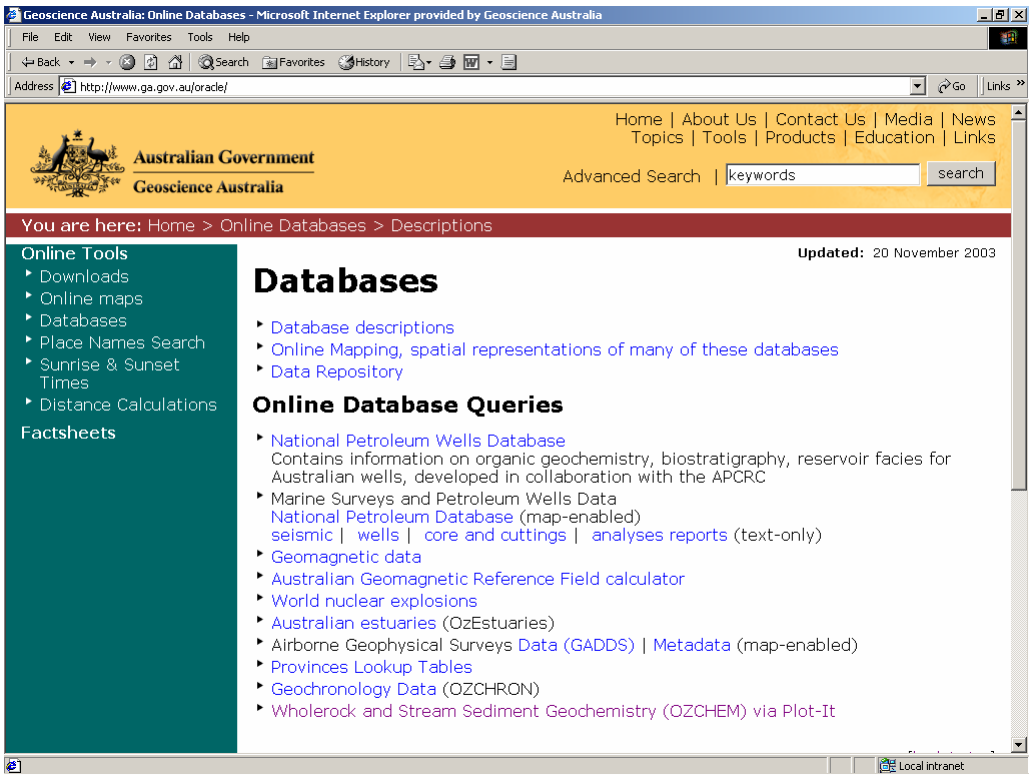
Using Plot-It

Where to find Plot-It

From the Geoscience Australia home page (http://www.ga.gov.au), click on the **Online Databases** link.

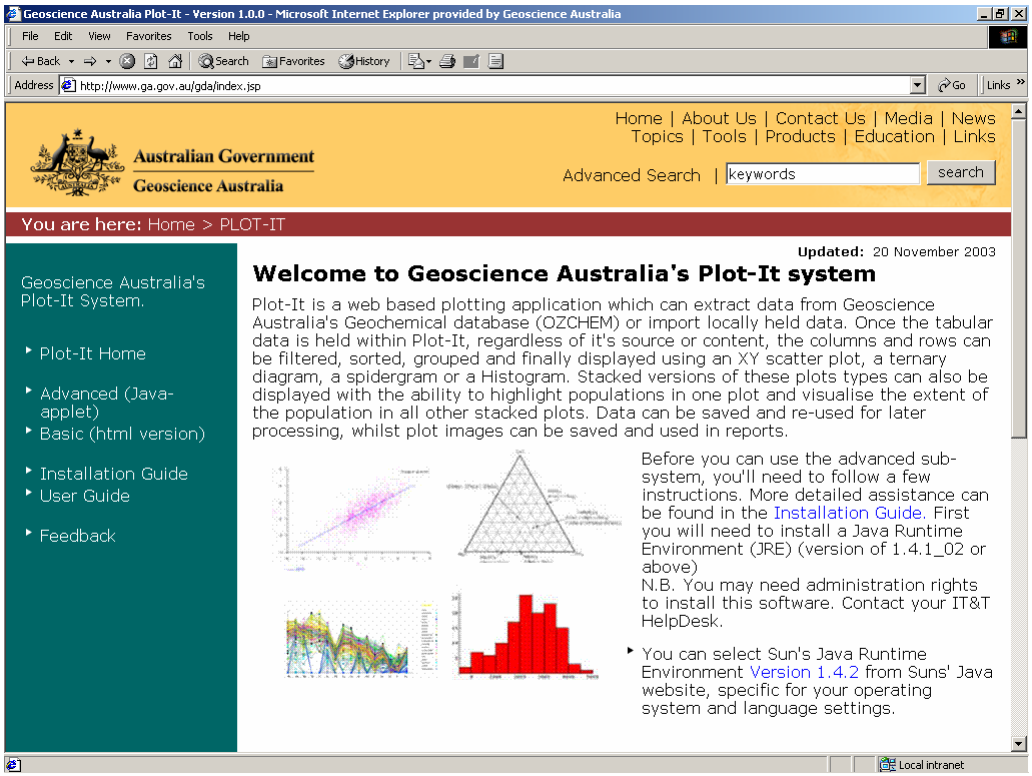


The **Online Databases** web page will be displayed.


Geoscience Australia: Online Databases - Microsoft Internet Explorer provided by Geoscience Australia
File Edit View Favorites Tools Help
Back Search Favorites History
Address http://www.ga.gov.au/oracle/
Go Links
Home | About Us | Contact Us | Media | News
Topics | Tools | Products | Education | Links
Australian Government
Geoscience Australia
Advanced Search | keywords search
You are here: Home > Online Databases > Descriptions
Online Tools
Downloads
Online maps
Databases
Place Names Search
Sunrise & Sunset Times
Distance Calculations
Factsheets
Updated: 20 November 2003
Databases
Database descriptions
Online Mapping, spatial representations of many of these databases
Data Repository
Online Database Queries
National Petroleum Wells Database
Contains information on organic geochemistry, biostratigraphy, reservoir facies for Australian wells, developed in collaboration with the APCRC
Marine Surveys and Petroleum Wells Data
National Petroleum Database (map-enabled)
seismic | wells | core and cuttings | analyses reports (text-only)
Geomagnetic data
Australian Geomagnetic Reference Field calculator
World nuclear explosions
Australian estuaries (OzEstuaries)
Airborne Geophysical Surveys Data (GADDS) | Metadata (map-enabled)
Provinces Lookup Tables
Geochronology Data (OZCHRON)
Wholerock and Stream Sediment Geochemistry (OZCHEM) via Plot-It
Local intranet

Click on the **Wholerock and Stream Sediment Geochemistry (OZCHEM) via Plot-It** link.

The **Welcome to Geoscience Australia's Plot-It System** page will be displayed.


Geoscience Australia Plot-It - Version 1.0.0 - Microsoft Internet Explorer provided by Geoscience Australia
File Edit View Favorites Tools Help
Back Search Favorites History
Address http://www.ga.gov.au/gda/index.jsp
Go Links
Home | About Us | Contact Us | Media | News
Topics | Tools | Products | Education | Links
Australian Government
Geoscience Australia
Advanced Search | keywords search
You are here: Home > PLOT-IT
Updated: 20 November 2003
Geoscience Australia's Plot-It System.
Plot-It Home
Advanced (Java-applet)
Basic (html version)
Installation Guide
User Guide
Feedback
Welcome to Geoscience Australia's Plot-It system
Plot-It is a web based plotting application which can extract data from Geoscience Australia's Geochemical database (OZCHEM) or import locally held data. Once the tabular data is held within Plot-It, regardless of it's source or content, the columns and rows can be filtered, sorted, grouped and finally displayed using an XY scatter plot, a ternary diagram, a spidergram or a Histogram. Stacked versions of these plots types can also be displayed with the ability to highlight populations in one plot and visualise the extent of the population in all other stacked plots. Data can be saved and re-used for later processing, whilst plot images can be saved and used in reports.
Before you can use the advanced sub-system, you'll need to follow a few instructions. More detailed assistance can be found in the Installation Guide. First you will need to install a Java Runtime Environment (JRE) (version of 1.4.1_02 or above)
N.B. You may need administration rights to install this software. Contact your IT&T HelpDesk.
You can select Sun's Java Runtime Environment Version 1.4.2 from Suns' Java website, specific for your operating system and language settings.
Local intranet

Before entering the Plot-It system, Sun's Java Runtime Environment v.1.4.2 must be installed on your computer. There is a separate help file available on the **Welcome** page for this procedure.

There are two versions of the Plot-It system.

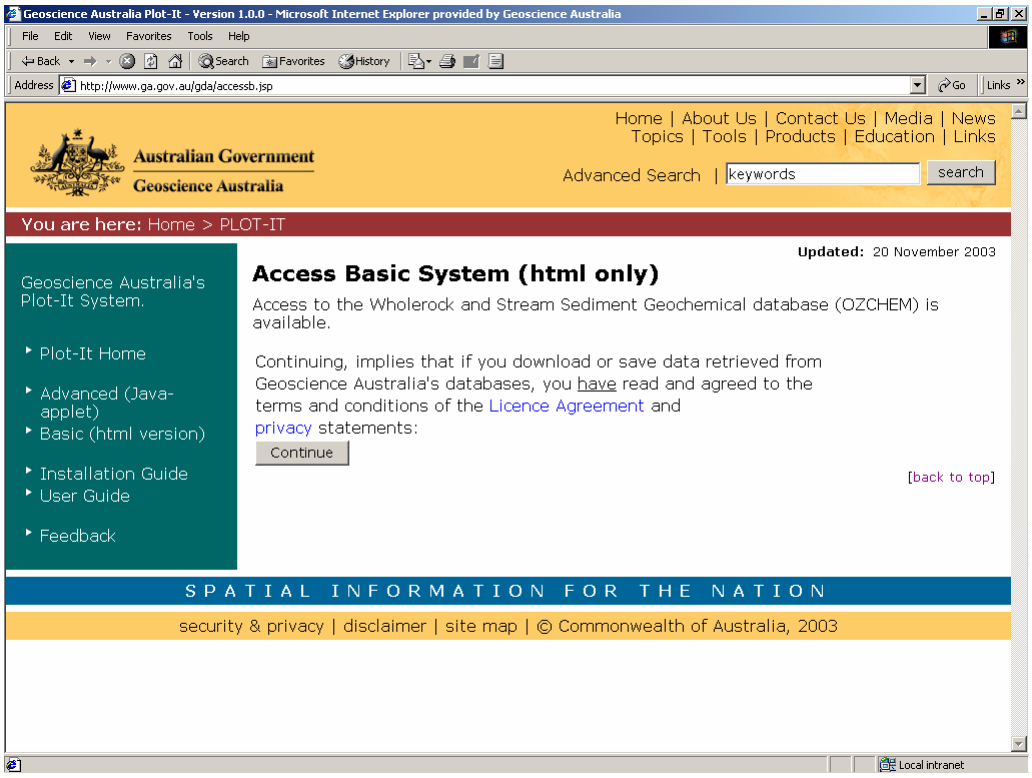
- One is the Basic version
- the other is a more advanced version, Java-driven system with enhanced functionality.

Using the Plot-It System – Basic Version

The basic HTML version of Plot-It will be covered first. This version allows the user to obtain wholerock and stream sediment data from GA's OZCHEM Database only. Due to the limitations of HTML, it does not provide a plotting facility. Later in this User Guide, the advanced version will be covered in detail.

From the Welcome screen, click on the Basic (html version) hyperlink. First you will be prompted with a Licence Agreement and Privacy statement. Continuing will imply that you have read and agreed to the terms and conditions of these statements.

The **Access Basic System (html only)** screen will be displayed. Please read the terms and conditions within the **Licence Agreement** and **Privacy Statement** documents before continuing.


Geoscience Australia Plot-It - Version 1.0.0 - Microsoft Internet Explorer provided by Geoscience Australia
File Edit View Favorites Tools Help
Back Search Favorites History
Address http://www.ga.gov.au/gda/accessb.jsp
Go Links
Home | About Us | Contact Us | Media | News
Topics | Tools | Products | Education | Links
Australian Government
Geoscience Australia
Advanced Search | keywords search
You are here: Home > PLOT-IT
Updated: 20 November 2003
Geoscience Australia's Plot-It System.
Plot-It Home
Advanced (Java-applet)
Basic (html version)
Installation Guide
User Guide
Feedback
Access Basic System (html only)
Access to the Wholerock and Stream Sediment Geochemical database (OZCHEM) is available.
Continuing, implies that if you download or save data retrieved from Geoscience Australia's databases, you have read and agreed to the terms and conditions of the Licence Agreement and privacy statements:
Continue
[back to top]
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security & privacy | disclaimer | site map | © Commonwealth of Australia, 2003
Local intranet

When ready, click on the **Continue** button

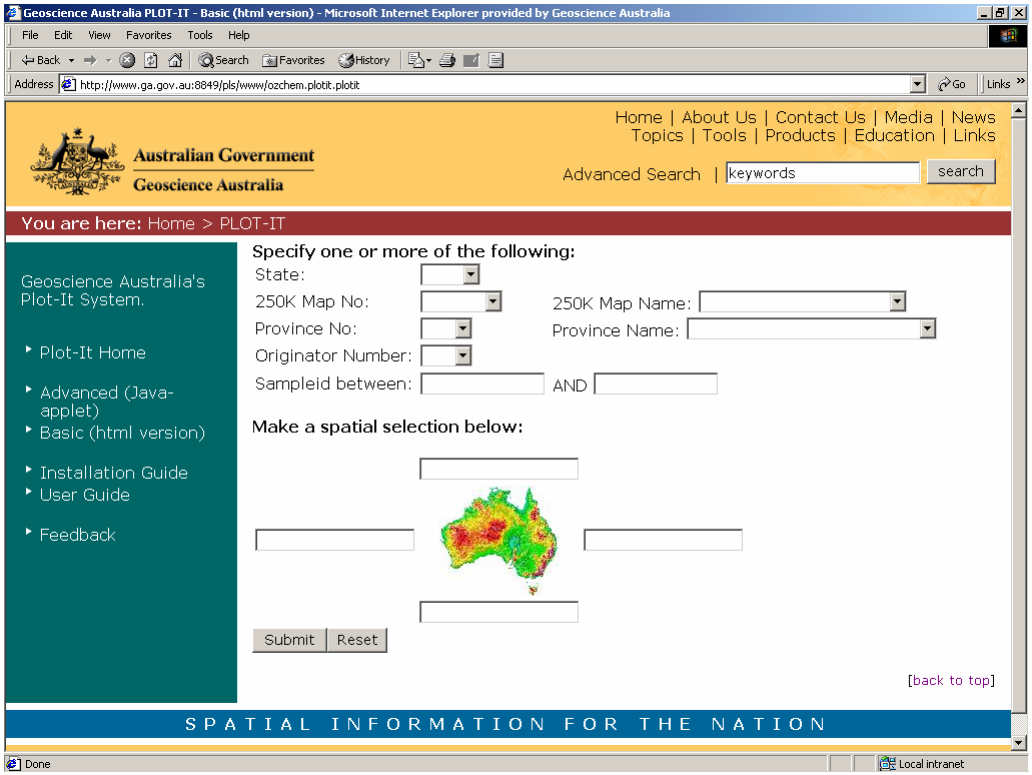
.

Note: Continuing will imply that you have read and agreed to the terms and conditions of these statements.

Query Form

The query screen (see below) will then be displayed allowing retrieval by **specifying one or more of the following:** .

- State
- 250K Mapsheet
- Province
- Originator
- Sampleid range or a
- Spatial selection using a Minimum Bounding Rectangle (MBR)



Use **State**, (**250K Map No** –or- **250k Map Name)**, (**Province No** –or- **Province Name)**, **Originator No**, **Sampleid between**) to fine-tune the query. Multiple inputs will result in a BOOLEAN AND query not an OR query.

e.g. State = “NSW” **AND** Sampleid between 2003751001 and 2003751999. The resultant table will contain all records where State is NSW and the sample number range is satisfied.

Alternatively, if latitude/longitude coordinates are known, enter them in the fields under the **Make a spatial selection below** heading. Only data relating to these coordinates will be queried.

To clear the form and start again, click on the **Reset** button

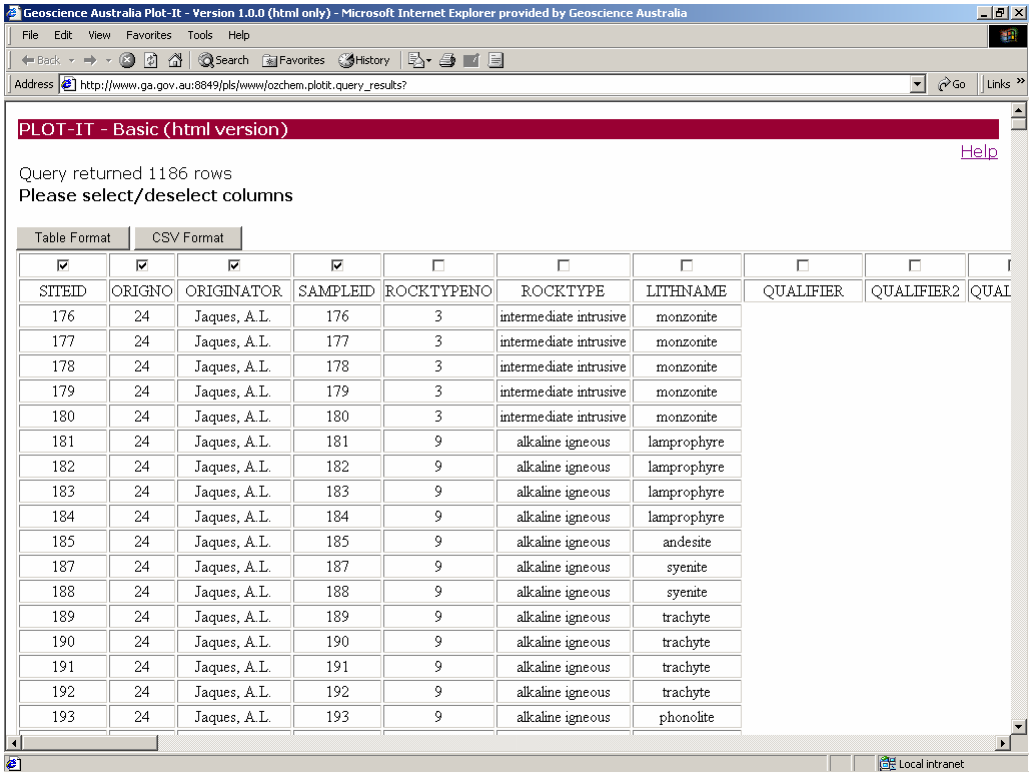
.

To proceed, click on the **Submit** button

.

Results

A new browser window will be displayed containing the results of the query.


Geoscience Australia Plot-It - Version 1.0.0 (html only) - Microsoft Internet Explorer provided by Geoscience Australia
File Edit View Favorites Tools Help
Address http://www.ga.gov.au:8849/pls/www/ozchem.plotit.query_results?
PLOT-IT - Basic (html version)
Help
Query returned 1186 rows
Please select/deselect columns
Table Format
CSV Format

SITEID	ORIGNO	ORIGINATOR	SAMPLEID	ROCKTYPENO	ROCKTYPE	LITHNAME	QUALIFIER	QUALIFIER2	QUAL
176	24	Jaques, A.L.	176	3	intermediate intrusive	monzonite			
177	24	Jaques, A.L.	177	3	intermediate intrusive	monzonite			
178	24	Jaques, A.L.	178	3	intermediate intrusive	monzonite			
179	24	Jaques, A.L.	179	3	intermediate intrusive	monzonite			
180	24	Jaques, A.L.	180	3	intermediate intrusive	monzonite			
181	24	Jaques, A.L.	181	9	alkaline igneous	lamprophyre			
182	24	Jaques, A.L.	182	9	alkaline igneous	lamprophyre			
183	24	Jaques, A.L.	183	9	alkaline igneous	lamprophyre			
184	24	Jaques, A.L.	184	9	alkaline igneous	lamprophyre			
185	24	Jaques, A.L.	185	9	alkaline igneous	andesite			
187	24	Jaques, A.L.	187	9	alkaline igneous	syenite			
188	24	Jaques, A.L.	188	9	alkaline igneous	syenite			
189	24	Jaques, A.L.	189	9	alkaline igneous	trachyte			
190	24	Jaques, A.L.	190	9	alkaline igneous	trachyte			
191	24	Jaques, A.L.	191	9	alkaline igneous	trachyte			
192	24	Jaques, A.L.	192	9	alkaline igneous	trachyte			
193	24	Jaques, A.L.	193	9	alkaline igneous	phonolite			

Using the checkboxes contained in the top row of the table, select or deselect columns of data as required.

Formats

There are two data formatting options available:

- **Table** –this option will format the data for use in a Microsoft Word or Excel (using Copy and Paste); and
- **CSV** – this option will format the data for later use in spreadsheet or database. (save the contents of the screen to an ascii file, using the Browsers File - Save As… (text only) option.

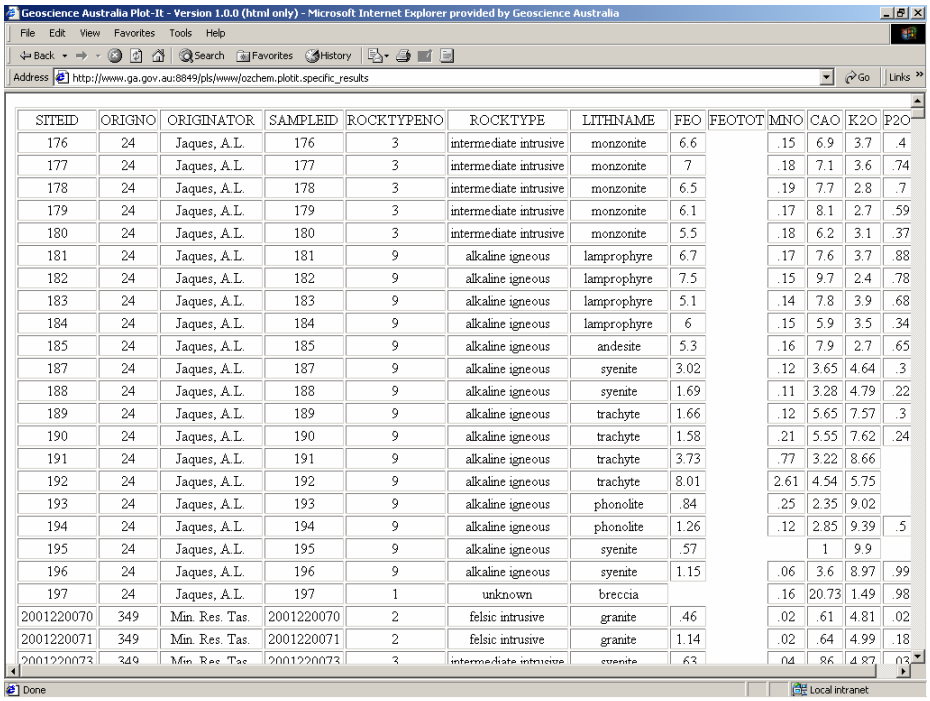
Click on the **Table Format** button or

the **CSV Format** button to format the selected data.

Note: It may take a few moments for the formatted data to load in the browser.

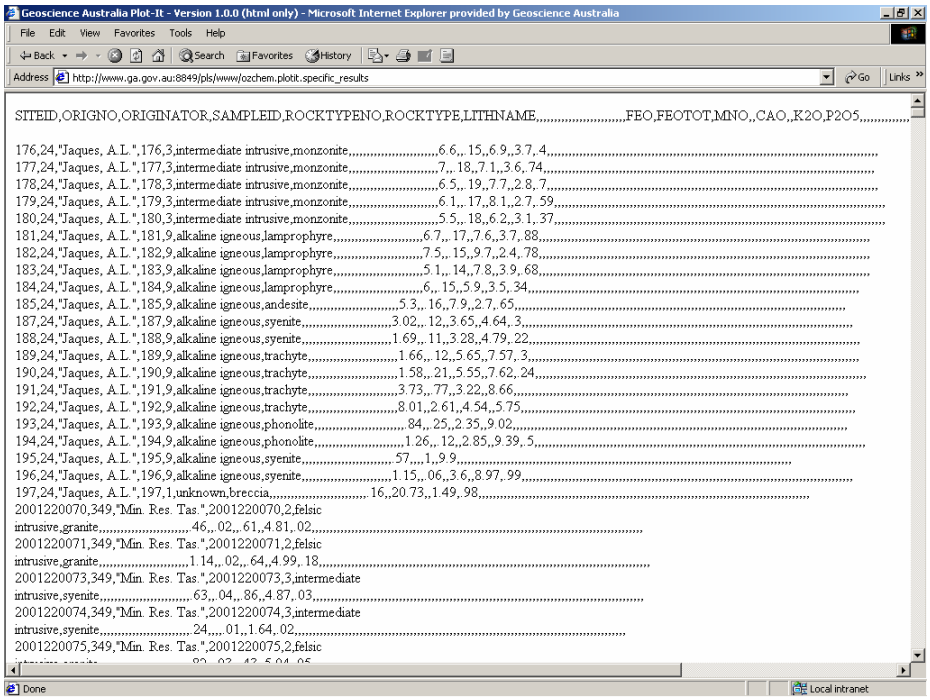
The page will now display the data in the format selected in the previous step. Cut and paste the data into the appropriate software package for manipulation.

Table Format:



SITEID	ORIGNO	ORIGINATOR	SAMPLEID	ROCKTYPENO	ROCKTYPE	LITHNAME	FEO	FEOTOT	MNO	CAO	K2O	P2O
176	24	Jaques, A.L.	176	3	intermediate intrusive	monzonite	6.6		.15	6.9	3.7	.4
177	24	Jaques, A.L.	177	3	intermediate intrusive	monzonite	7		.18	7.1	3.6	.74
178	24	Jaques, A.L.	178	3	intermediate intrusive	monzonite	6.5		.19	7.7	2.8	.7
179	24	Jaques, A.L.	179	3	intermediate intrusive	monzonite	6.1		.17	8.1	2.7	.59
180	24	Jaques, A.L.	180	3	intermediate intrusive	monzonite	5.5		.18	6.2	3.1	.37
181	24	Jaques, A.L.	181	9	alkaline igneous	lamprophyre	6.7		.17	7.6	3.7	.88
182	24	Jaques, A.L.	182	9	alkaline igneous	lamprophyre	7.5		.15	9.7	2.4	.78
183	24	Jaques, A.L.	183	9	alkaline igneous	lamprophyre	5.1		.14	7.8	3.9	.68
184	24	Jaques, A.L.	184	9	alkaline igneous	lamprophyre	6		.15	5.9	3.5	.34
185	24	Jaques, A.L.	185	9	alkaline igneous	andesite	5.3		.16	7.9	2.7	.65
187	24	Jaques, A.L.	187	9	alkaline igneous	syenite	3.02		.12	3.65	4.64	.3
188	24	Jaques, A.L.	188	9	alkaline igneous	syenite	1.69		.11	3.28	4.79	.22
189	24	Jaques, A.L.	189	9	alkaline igneous	trachyte	1.66		.12	5.65	7.57	.3
190	24	Jaques, A.L.	190	9	alkaline igneous	trachyte	1.58		.21	5.55	7.62	.24
191	24	Jaques, A.L.	191	9	alkaline igneous	trachyte	3.73		.77	3.22	8.66	
192	24	Jaques, A.L.	192	9	alkaline igneous	trachyte	8.01		2.61	4.54	5.75	
193	24	Jaques, A.L.	193	9	alkaline igneous	phonolite	.84		.25	2.35	9.02	
194	24	Jaques, A.L.	194	9	alkaline igneous	phonolite	1.26		.12	2.85	9.39	.5
195	24	Jaques, A.L.	195	9	alkaline igneous	syenite	.57			1	9.9	
196	24	Jaques, A.L.	196	9	alkaline igneous	syenite	1.15		.06	3.6	8.97	.99
197	24	Jaques, A.L.	197	1	unknown	breccia			.16	20.73	1.49	.98
2001220070	349	Min. Res. Tas.	2001220070	2	felsic intrusive	granite	.46		.02	.61	4.81	.02
2001220071	349	Min. Res. Tas.	2001220071	2	felsic intrusive	granite	1.14		.02	.64	4.99	.18
2001220073	349	Min. Res. Tas.	2001220073	3	intermediate intrusive	syenite	.63		.04	.86	4.87	.03

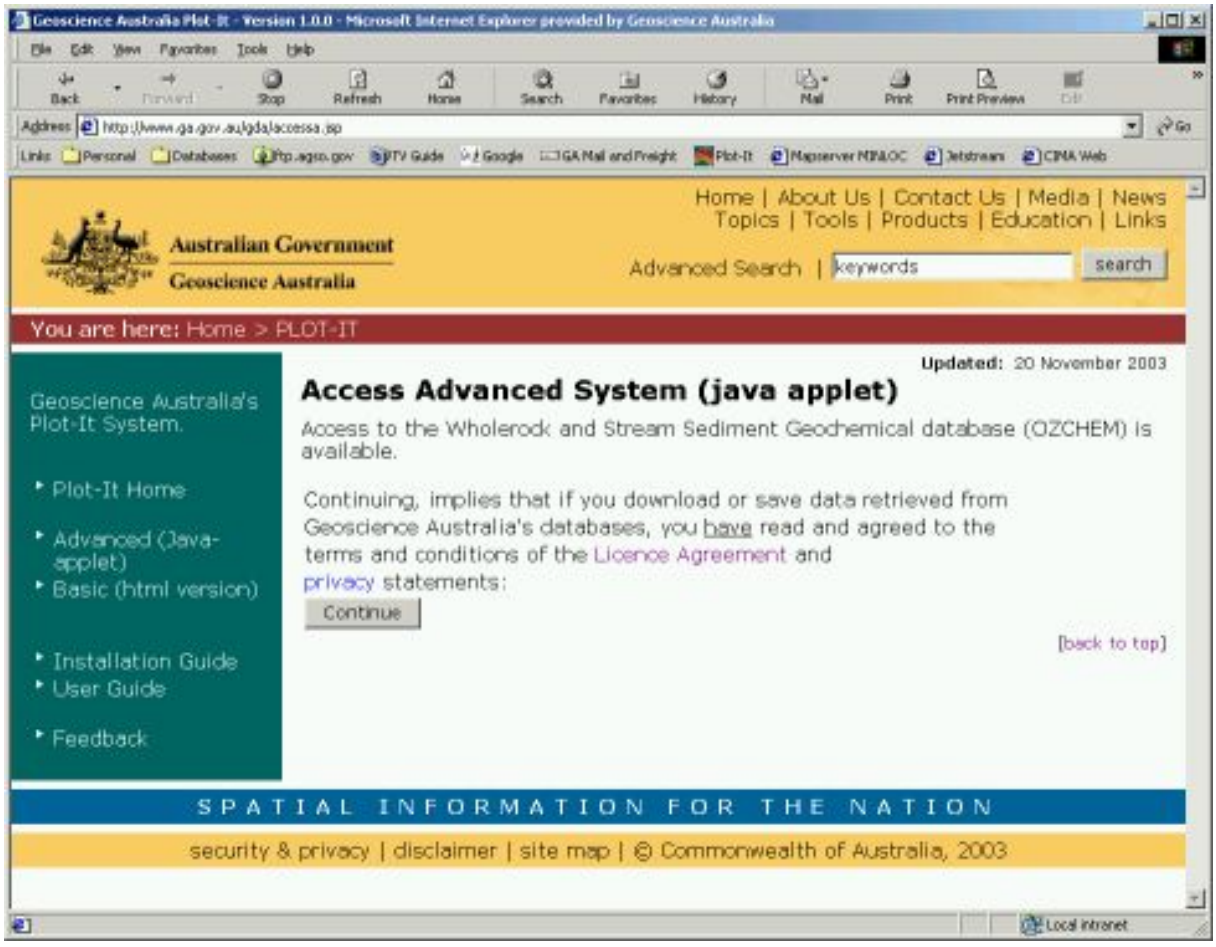
CSV Format:


Geoscience Australia Plot-It - Version 1.0.0 (html only) - Microsoft Internet Explorer provided by Geoscience Australia
File Edit View Favorites Tools Help
Back Search Favorites History
Address http://www.ga.gov.au:8849/pls/www/ozchem.plotit.specific_results
Go Links
SITEID,ORIGNO,ORIGINATOR,SAMPLEID,ROCKTYPENO,ROCKTYPE,LITHNAME,,,

Using the Plot-It System – Advanced Version

From the **Welcome** page, click on the **Advanced (Java-applet)** hyperlink.

First you will be prompted with a Licence Agreement and Privacy statement. Continuing will imply that you have read and agreed to the terms and conditions of these statements. This is only valid if you download or save data from Geoscience Australia's databases.


Geoscience Australia Plot-It - Version 1.0.0 - Microsoft Internet Explorer provided by Geoscience Australia
Australian Government
Geoscience Australia
Home | About Us | Contact Us | Media | News
Topics | Tools | Products | Education | Links
Advanced Search | keywords search
You are here: Home > PLOT-IT
Updated: 20 November 2003
Geoscience Australia's Plot-It System.
Plot-It Home
Advanced (Java-applet)
Basic (html version)
Installation Guide
User Guide
Feedback
Access Advanced System (java applet)
Access to the Wholerock and Stream Sediment Geochemical database (OZCHEM) is available.
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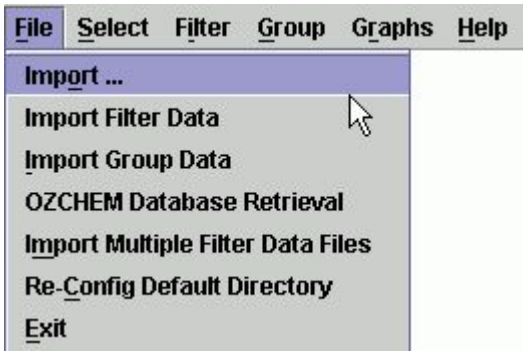
Local intranet

The **Plot-It introduction screen** will then be displayed.

Geoscience Australia Plot-It - Release Version 1.0.0
File Select Filter Group Graphs Help
Geoscience Australia
Plot-It
Use the File menu to retrieve data
Exit

Importing Data

There are several options on the File menu for importing data into Plot-It.



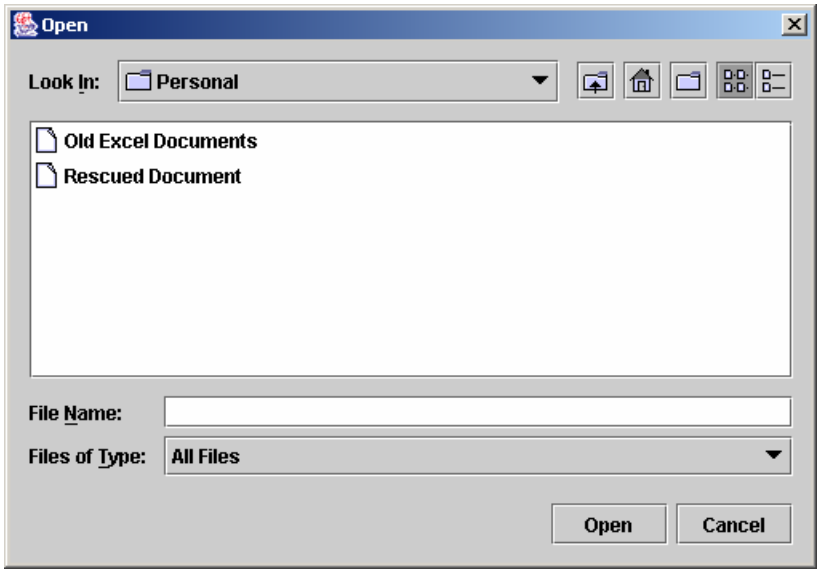
- The Import menu accesses files not previously used by Plot-It (ie user defined structure and content).
- Import Filter Data - files previously saved from the Plot-It Filter process.
- Import Group Data - files previously saved from the Plot-It Group process.
- There is also the ability to retrieve data from Geoscience Australia's OZCHEM Database.
- The Import Multiple Data Files menu provides the ability to merge files with a consistent structure resulting in a single concatenated file. The original filenames are captured and stored in the source column in the merged dataset.

To import data:

Click on the relevant File sub-menu:

- Import…
- Import Filter Data (Data previously saved from the Filter screen)
- Import Group Data (Data previously saved from the Group screen)

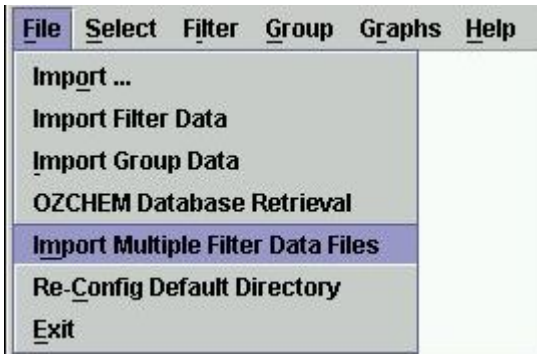
The **Open** dialog box will be displayed.



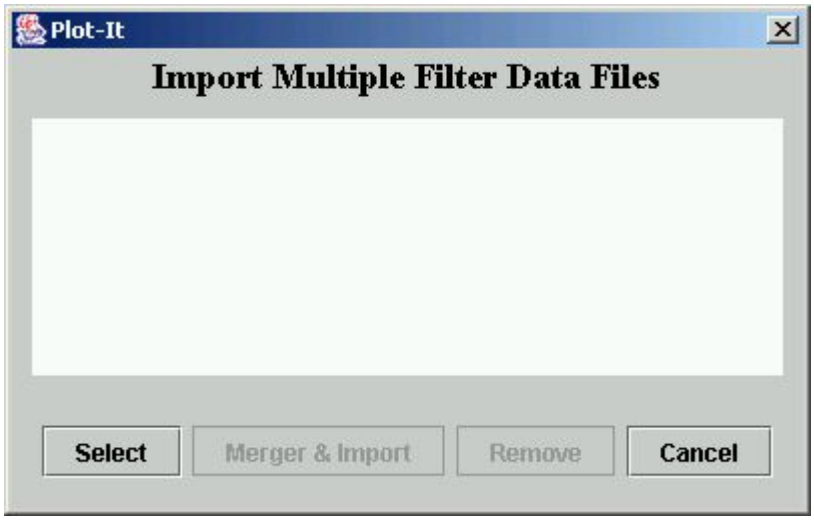
Locate the data file(s) you wish to import and then click on the Open button.

Importing Multiple Data Files

This utility concatenates multiple files of the same format/structure into a single table for use within Plot-It. During the merge the original filenames are captured and stored in a source column.



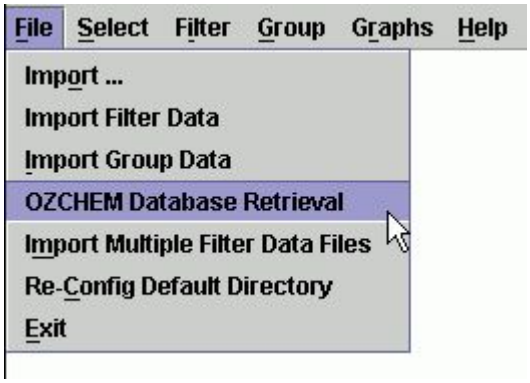
The following dialog box will appear.



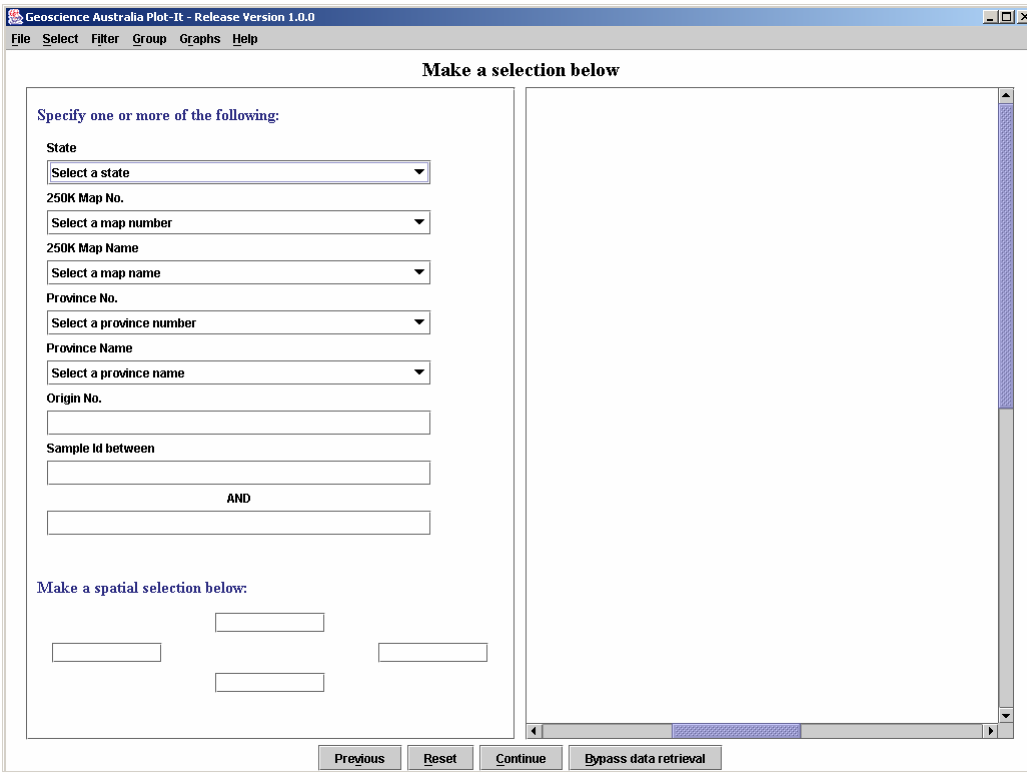
Pressing Select will present a similar **Open** dialog box to the previous Import process. The order in which to select the multiple files will determine the initial order in which the resultant datafile is sorted.

Retrieving Data from the OZCHEM Database

From the File menu, click on **OZCHEM Database Retrieval**.



The **Selection screen** provides for both attribute and spatial queries.



There are several methods available for retrieving the data:

- Select using the drop-down fields;
- Select using a range of sample ID's; or
- Make a spatial selection, either manually (i.e. inserting the coordinates) or selecting a point on the map of Australia in the right-hand frame of the screen. **Note**: The current map selection is slow. On modem links it may take a few minutes to draw the map of Australia with all the geochemical points.

Retrieving Data Using the Drop-down Fields

Under the **Specify one or more of the following** heading in the left frame, click on the ▼ of any of the fields.

If required, enter information into the 250K Map No, 250K Map Name, Province No or Province Name fields.

Retrieving Data Using Sample IDs

To query a single Sample ID - in the first **Sample Id between** field, enter a known Sample ID number.

To query a range of Sample IDs (for example AB100 to AB150) – enter the minimum range in the first **Sample Id between** field, and the maximum range in the second **Sample Id between** field.

Retrieving Data Using Spatial Selection

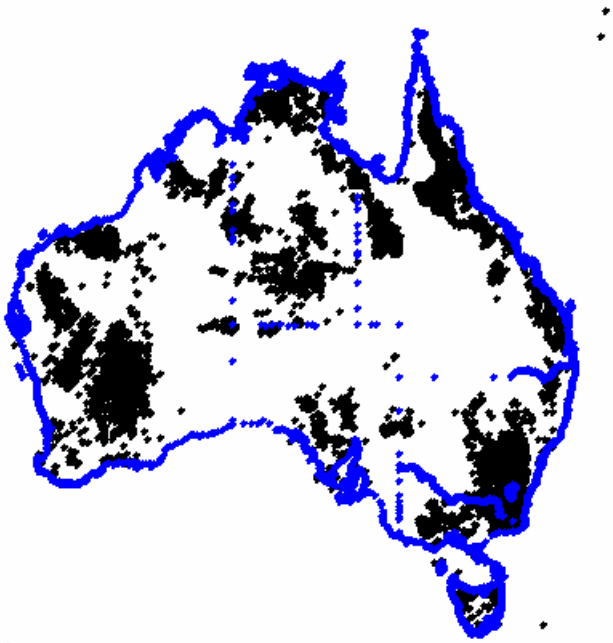
If the latitudinal and longitudinal values are known, enter them in the fields under the **Make a spatial selection** below heading.

Alternatively, select a point on the map of Australia in the right-hand frame of the screen.

Click in the **I'd like to use the Visual Spatial Selection facility** checkbox.

Click on a point on the map of Australia. This will place the latitudinal and longitudinal values in the fields automatically.

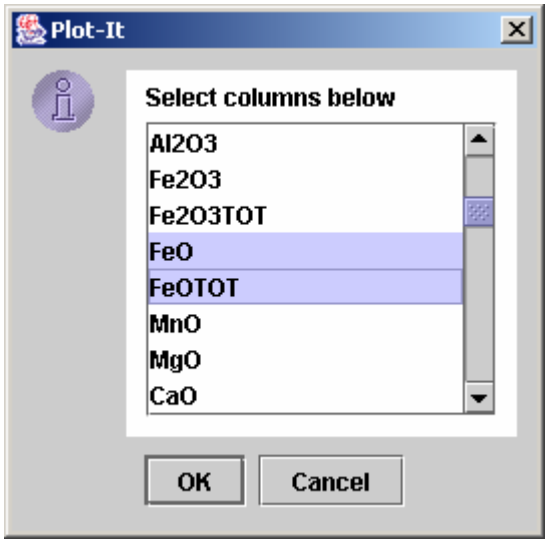
Note: This option can be quite slow and should only be utilised on a broadband connection.



When ready, click on the Continue button.

To clear the form and start again before continuing, click on the Reset button.

The **Select columns below** dialog box will be displayed. Select the required Identifications and Elements. Hold down the **Shift** or **Ctrl** keys to select more than one of either.

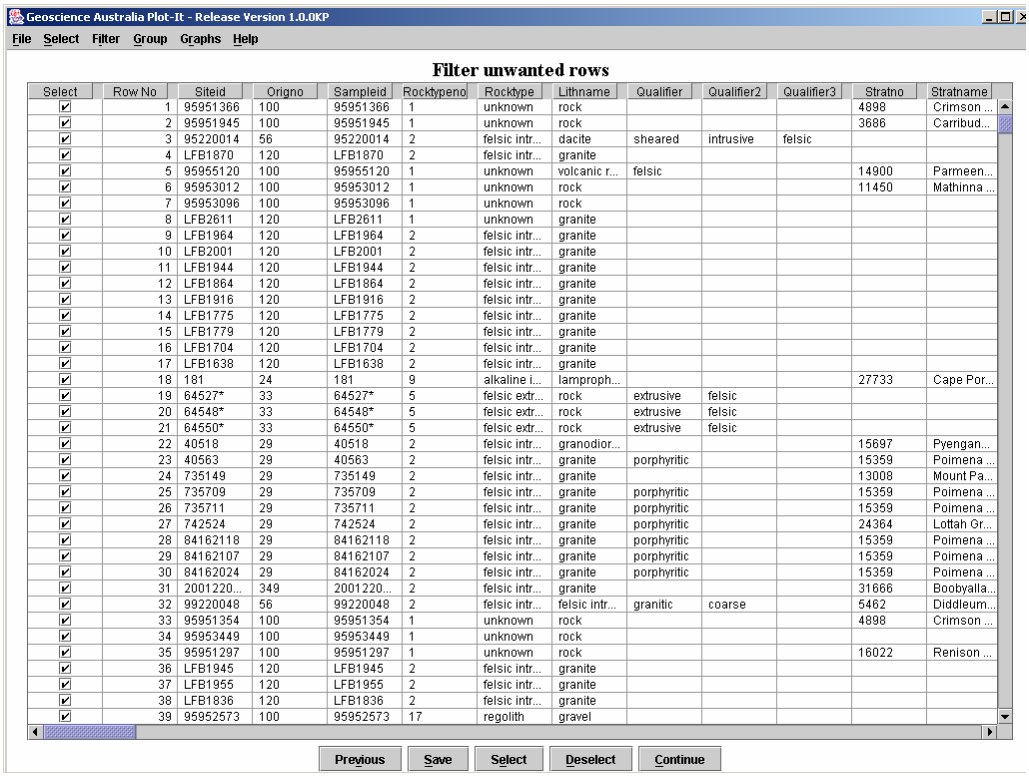


Click on the **OK** button to continue.

The applet will disappear for a few seconds (leaving only the calling browser) as Plot-It retrieves the selected data.

Filter Functions

The following **Filter** screen will be displayed.


Geoscience Australia Plot-It - Release Version 1.0.0KP
File Select Filter Group Graphs Help
Filter unwanted rows
Previous Save Select Deselect Continue

Select	Row No	Siteid	Origno	Sampleid	Rocktypeno	Rocktype	Lithname	Qualifier	Qualifier2	Qualifier3	Stratno	Stratname
☑	1	95951366	100	95951366	1	unknown	rock				4898	Crimson ...
☑	2	95951945	100	95951945	1	unknown	rock				3686	Carribud...
☑	3	95220014	56	95220014	2	felsic intr...	dacite	sheared	intrusive	felsic		
☑	4	LFB1870	120	LFB1870	2	felsic intr...	granite					
☑	5	95955120	100	95955120	1	unknown	volcanic r...	felsic			14900	Parmeen...
☑	6	95953012	100	95953012	1	unknown	rock				11450	Mathinna ...
☑	7	95953096	100	95953096	1	unknown	rock					
☑	8	LFB2611	120	LFB2611	1	unknown	granite					
☑	9	LFB1964	120	LFB1964	2	felsic intr...	granite					
☑	10	LFB2001	120	LFB2001	2	felsic intr...	granite					
☑	11	LFB1944	120	LFB1944	2	felsic intr...	granite					
☑	12	LFB1864	120	LFB1864	2	felsic intr...	granite					
☑	13	LFB1916	120	LFB1916	2	felsic intr...	granite					
☑	14	LFB1775	120	LFB1775	2	felsic intr...	granite					
☑	15	LFB1779	120	LFB1779	2	felsic intr...	granite					
☑	16	LFB1704	120	LFB1704	2	felsic intr...	granite					
☑	17	LFB1638	120	LFB1638	2	felsic intr...	granite					
☑	18	181	24	181	9	alkaline i...	lamproph...				27733	Cape Por...
☑	19	64527*	33	64527*	5	felsic extr...	rock	extrusive	felsic			
☑	20	64548*	33	64548*	5	felsic extr...	rock	extrusive	felsic			
☑	21	64550*	33	64550*	5	felsic extr...	rock	extrusive	felsic			
☑	22	40518	29	40518	2	felsic intr...	granodior...				15697	Pyengan...
☑	23	40563	29	40563	2	felsic intr...	granite	porphyritic			15359	Poimena ...
☑	24	735149	29	735149	2	felsic intr...	granite				13008	Mount Pa...
☑	25	735709	29	735709	2	felsic intr...	granite	porphyritic			15359	Poimena ...
☑	26	735711	29	735711	2	felsic intr...	granite	porphyritic			15359	Poimena ...
☑	27	742524	29	742524	2	felsic intr...	granite	porphyritic			24364	Lottah Gr...
☑	28	84162118	29	84162118	2	felsic intr...	granite	porphyritic			15359	Poimena ...
☑	29	84162107	29	84162107	2	felsic intr...	granite	porphyritic			15359	Poimena ...
☑	30	84162024	29	84162024	2	felsic intr...	granite	porphyritic			15359	Poimena ...
☑	31	2001220...	349	2001220...	2	felsic intr...	granite				31666	Boobyalla...
☑	32	99220048	56	99220048	2	felsic intr...	felsic intr...	granitic	coarse		5462	Diddleum...
☑	33	95951354	100	95951354	1	unknown	rock				4898	Crimson ...
☑	34	95953449	100	95953449	1	unknown	rock					
☑	35	95951297	100	95951297	1	unknown	rock				16022	Renison ...
☑	36	LFB1945	120	LFB1945	2	felsic intr...	granite					
☑	37	LFB1955	120	LFB1955	2	felsic intr...	granite					
☑	38	LFB1836	120	LFB1836	2	felsic intr...	granite					
☑	39	95952573	100	95952573	17	regolith	gravel					

All rows are selected by default. To filter unwanted rows, deselect the appropriate checkbox(es) in the **Select** column. The following filter options are available.

- Select and De-Select
- Select All Rows, De-Select All
- Toggle Selection.

Rows

Sorting

To sort a column into an order (numerical, alphabetical etc), click on the button that is the column heading. A three (3) dimensional sort can be achieved by using the Filter - Sort menu. This imitates a similar function found within Microsoft Excel.

SITEID	SAMPLEID	ORIGNO
99220053	99220053	56
95951033	95951033	100
95951112	95951112	100

Standard Expressions

Extra columns can be added to the dataset but they must be saved to a file and re-imported to be available for plotting. A number of standard expressions are available.

(ASI, agpaitic index, mg, total Fe, Na2O+K2O etc).

Stats

Some simple statistics have been incorporated as a report. (Mean, Standard Deviation, Min, Max and Count)

Saving Data

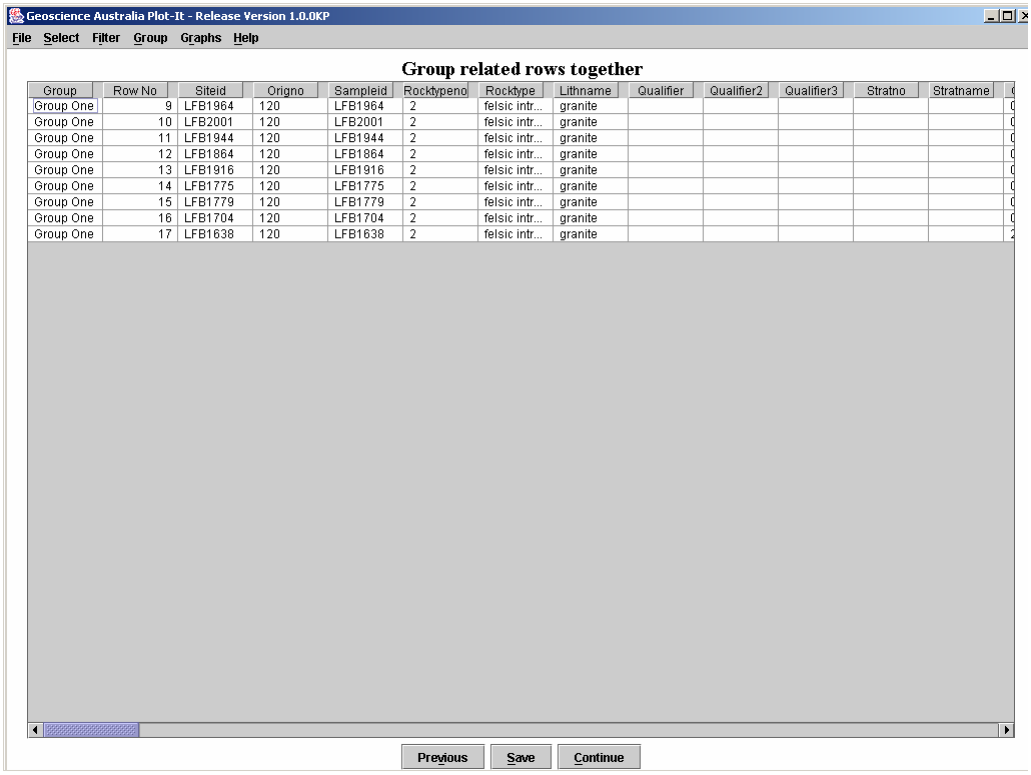
The filtered and sorted data can be saved to a file for later use. Simply press the SAVE button and choose a suitable location.

When ready, click on the **Continue** button

. The Group screen will appear.

Group Functions

The following **Group** screen will be displayed.


Geoscience Australia Plot-It - Release Version 1.0.0KP
File Select Filter Group Graphs Help
Group related rows together
Group Row No Siteid Origno Sampleid Rocktypeno Rocktype Lithname Qualifier Qualifier2 Qualifier3 Stratno Stratname
Group One 9 LFB1964 120 LFB1964 2 felsic intr... granite
Group One 10 LFB2001 120 LFB2001 2 felsic intr... granite
Group One 11 LFB1944 120 LFB1944 2 felsic intr... granite
Group One 12 LFB1864 120 LFB1864 2 felsic intr... granite
Group One 13 LFB1916 120 LFB1916 2 felsic intr... granite
Group One 14 LFB1775 120 LFB1775 2 felsic intr... granite
Group One 15 LFB1779 120 LFB1779 2 felsic intr... granite
Group One 16 LFB1704 120 LFB1704 2 felsic intr... granite
Group One 17 LFB1638 120 LFB1638 2 felsic intr... granite
Previous
Save
Continue

Assign Groups

This item is accessed from the Group menu and copies values from any column to the Group column. A group is a logical set of samples which will be displayed with all samples within it having the same symbol. If groups are not assigned, all samples will belong to a single group.

Sorting

To sort a column into an order (numerical, alphabetical etc), click on the button that is the column heading. A three (3) dimensional sort can be achieved by using the Filter - Sort menu. This imitates a similar function found within Microsoft Excel.

Saving Data

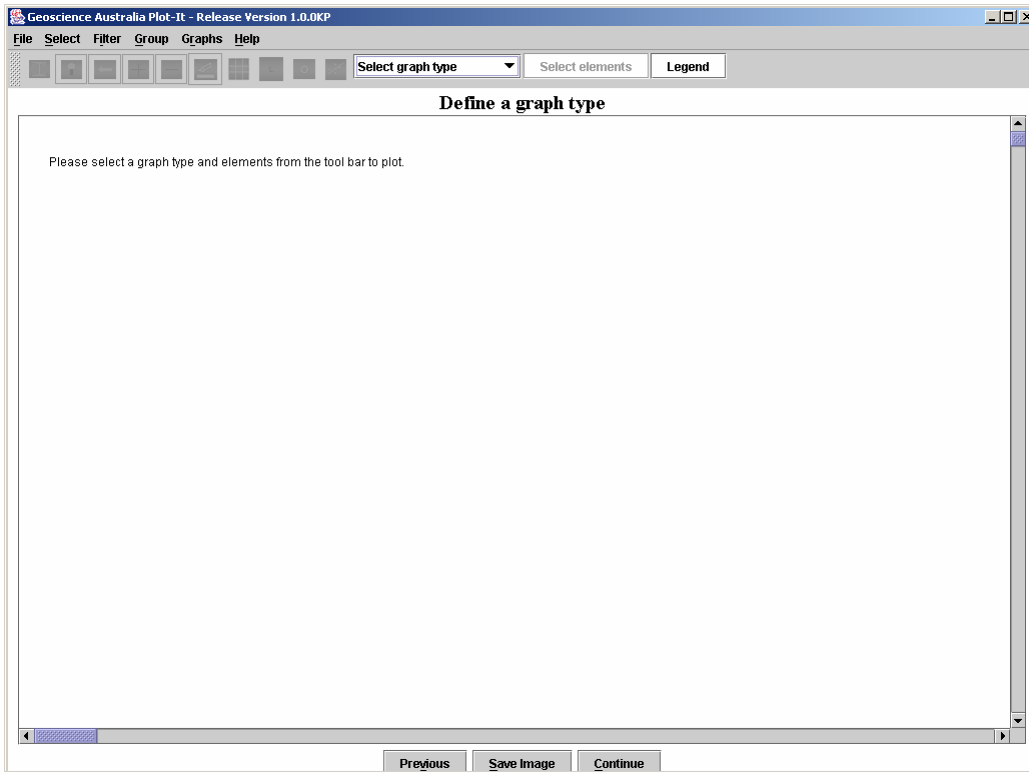
The group and/or sorted data can be saved to a file for later use. Simply press the SAVE button and choose a suitable location.

When ready, click on the **Continue** button

.

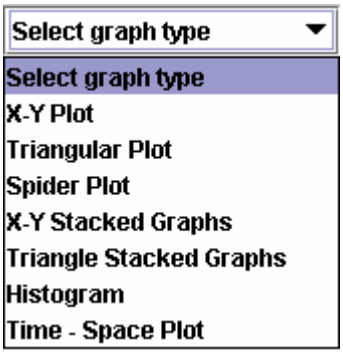
Select a Graph Type

The **Select a graph type** screen will be displayed.


Geoscience Australia Plot-It - Release Version 1.0.0KP
File Select Filter Group Graphs Help
Select graph type
Select elements
Legend
Define a graph type
Please select a graph type and elements from the tool bar to plot.
Previous
Save Image
Continue

Click on the ▼ of the **Select graph type** field to select the appropriate graph type. You may choose one of: X-Y Plot, Triangular Plot, Spider Plot, X-Y Stacked Graphs, Triangle Stacked Graphs, Histogram or Time-Space Plot (available when geochronological data is imported).

For the following example, X-Y Plot will be selected.



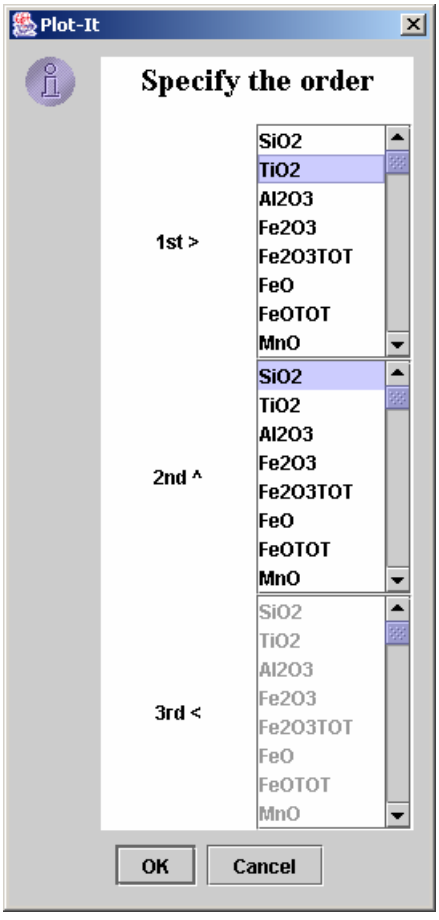
Specify the elements

Click on the **Select Elements** button.

Choose the required elements from the **Specify the order** dialog box. You must select two elements in this example (X-Y Plot).

NOTE: The ^ < > symbols are utilised by Ternary plots and represent the corners of a triangle

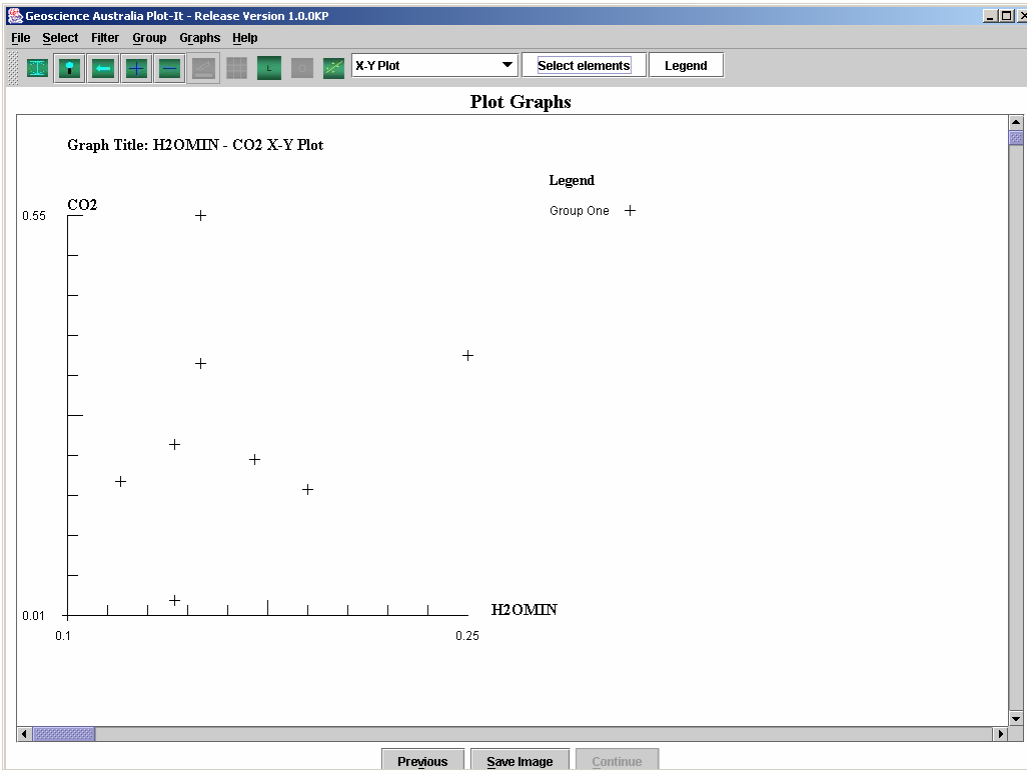
- > bottom right;
- ^ top and
- < bottom left positions.



Click on the **OK** button

.to proceed to the Plot screen.

The **Plot Graphs** screen will be displayed. The graph displayed will depend on the type of graph and elements selected in the previous steps.



Graph Tools

Below is an explanation of the function of each button:

Button	Description
	Add 20% of extra space to the beginning of each axis.
	Enlarge the selected area after the user drags out a box with the mouse.
	Revert to the original graph.
	Enlarge the size of the graph.
	Reduce the size of the graph.
	Highlight part of a graph.
	Show grid lines on the graph.
	Logarithm.
	Graphic Overlay.
	Best fit lines.

Regression Lines

Three standard regression lines are included: PearsonsX, Reduced and XonY.

Highlighting

The Highlighting tool is enabled when multiple stacked graphs are chosen. Highlighting a population on one graph will highlight the same population on all other graphs. Rows in the Group screen (select the Previous Button) will also be highlighted.

Overlays

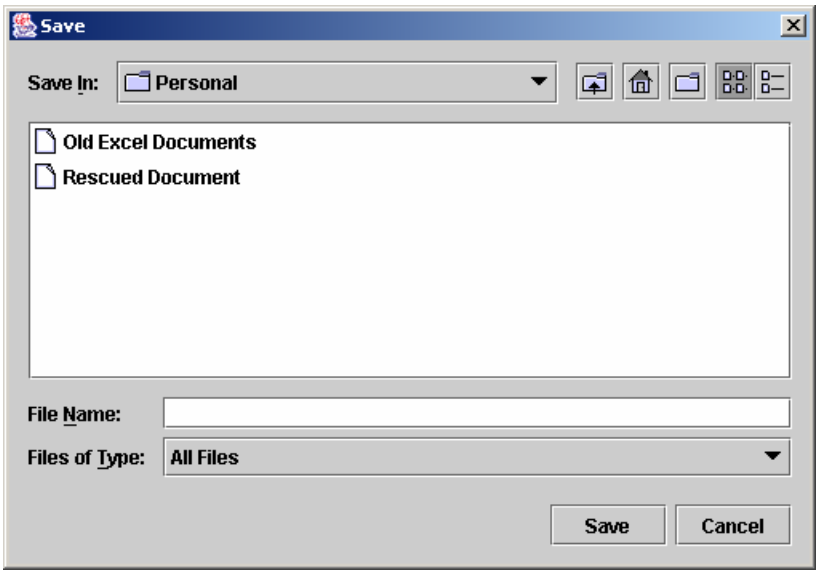
Standard overlays for XY Scatter and Ternary diagrams are provided, however this can be copied to a local file system and modified or new ones created. Text labels can also be added.

Save Graph Plots

Once satisfied with the plot, click on the **Save Image** button

.

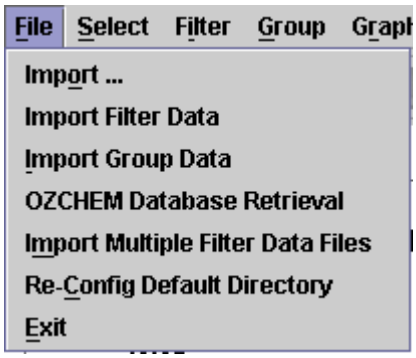
The **Save** dialog box will be displayed:



Navigate to where the plot image is to be saved, then click on the **Save** button.

Exiting the System

From the **File** menu, select **Exit**.



Note: This will close the screen containing the applet. You will find that the calling browser will still be open. Exit the browser by pressing the Exit button or by closing the window.

Help Desk Support

If you are experiencing difficulties using Plot-It, or have any questions, contact:

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If you have any questions regarding the data extracted from Geoscience Australia's Whole rock and Stream Sediment Geochemistry Database (OZCHEM), contact:

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If you have any questions regarding this documentation, contact:

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